Appl. No. 10/065,767
Amdt. dated April 15, 2005
Reply to Office action of February 08, 2005

AMENDMENTS TO THE DRAWINGS

    Please replace original figures 2-4B with the new figures 2-4B as shown in the included replacements sheets.

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REMARKS

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1. Figures 2-4B should be designated by a legend such as Prior Art because only that which is old is illustrated

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Replacement sheets are provided for figures 2-4B having "Prior Art" as the legend. No new matter is entered.

2. The lengthy specification has not been checked to the extent necessary to

10   **determine the presence of all possible minor errors**

Paragraph 14, line 2 is amended to read "As shown in Fig.4A, the spare area SA(n-1) on the track 24 contains spare block S0" as suggested by Examiner. No new matter is entered.

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3. Claims 1-6 are rejected under 35 USC 102(b) as being anticipated by Shinno et al. (US 5,319,627)

The preamble of claim 1 is amended to state that the optical disc has a plurality of

20   areas, each area having a plurality of data blocks and a plurality of spare blocks arranged in order, each of the data blocks being used to record data. Additionally, the body of claim 1 is amended to include the limitation that within the status table, a first column recording a status of a last spare block in a first area neighbors a second column recording a status of a first spare block in a next area.

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No new matter is entered by the amendments to claim 1. In particular, the amendments to claim 1 are supported by the specification in paragraph [0045] and the drawing shown in Fig.6. As stated in paragraph [0045], "the field 52C that maps to the

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last spare block Sa3 in the spare area SA(1)(the one at the left) will also neighbor the field 52D that maps to the first spare block Sb1 of the spare area SA(2)"

Applicant asserts that currently amended claim 1 is not anticipated by Shinno et al.

5   because Shinno et al. teach having a first column of the spare area table for indicating the state of the spare area of the zone 0. (col 7, lines 56-58) Additionally, as taught by Shinno et al. in col 6 lines 50-56, "FIG. 4 illustrates a spare area table which indicates states of spare areas respectively corresponding to zones. In this table, an nth row stores data, each byte of which indicates the state of each spare sector of the spare area corresponding to an

10   nth zone (namely, whether the corresponding spare sector is being used, or presently available or defective)." As shown in Fig.10 of Shinno et al., the status of a first spare block in a second zone (zone 1) starts in a new (2nd) column and does not neighbor the status of the last spare block of the zone 0 being in the first column.

15   Applicant further asserts that currently amended claim 1 is not obvious given the teachings of Shinno et al. In particular, Shinno et al. specifically teach organizing data of different zones on the optical disc in different rows of the spare area table of Fig.4 (for which Fig.10 corresponds) as part of the description of the invention. (col 6, lines 50-56) As one example, the organization of the spare area table in different rows (shown as

20   different columns in Fig.10) corresponding to zones as taught by Shinno et al. is used when performing write operations. (col 9, lines 4-15)

Applicant asserts that not organizing the spare area table disclosed by Shinno et al. in terms of zones would prevent the invention taught by Shinno et al. to function as

25   described. See the zone division table of Fig.2, the zone pointer table of Fig.3, and the spare area pointer table of Fig.5 (also being organized by zones). Therefore, organizing the status table such that <u>a first column recording a status of a last spare block in a first area neighbors a second column recording a status of a first spare block in a next area</u>

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would not be obvious given the teachings of Shinno et al. because it would not longer be organized in terms of different zones. For this reason, applicant asserts currently amended claim 1 should be allowable over Shinno et al. Claims 2-6 are dependent on claim 1 and should be allowable for at least the same reasons. Consideration of claims 1-6 is

5   respectfully requested.

4. New Claims

New claims 7-18 are entered. No new matter is entered by the new claims (see

10   references to original specification as filed for each new claim provided below). As new claims 7-18 are dependent on claim 1, if currently amended claim 1 is found allowable, claims 7-18 should also be found allowable. Additionally, applicant has provided further comments concerning patentability for each of the new claims.

15   Specifically, concerning claims 7-8, see paragraph [0054]. Applicant points out that Shinno et al. do not teach including other related data such as an address of a substituted defective data block in each column of the spare area table shown in Fig.4 (or Fig.10).

Concerning claim 9, see paragraph [0055]. Applicant points out that Shinno et al. do

20   not teach reading a defect table from the optical disc and thereby establishing the spare area table according to the defect table.

Concerning claim 10-12, see paragraph [0058]. Applicant points out that Shinno et al. do not teach reading the spare area table shown in Fig.4 (or Fig.10) from the optical disc.

25   Moreover, applicant points out that Shinno et al. do not teach writing the spare area table to the optical disc if it is changed during a session.

Concerning claims 13-15, see paragraph [0061]. Applicant points out that Shinno et

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al. do not teach calculating statistic data according to the spare area table, and do not teach adjusting either the accessing speed higher or lower according to the statistic data.

5   Concerning claims 16-18, see paragraph [0062]. Applicant points out that Shinno et al. do not teach calculating a distribution status of the spare area table, or pre-reading into memory spare blocks being within a region having the most spare blocks to avoid later moving a pick-up head of the optical disc drive when accessing said spare blocks.

       Consideration of new claims 7-18 is respectfully requested.

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Respectfully submitted,
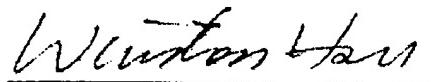
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20   Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan).

       Attachment: Replacement Sheets

11